

SINUSITIS

ازای اشخصها ؟

Symptoms

- Mucopurulent nasal discharge & Nasal obstruction

*High fever especially if acute sinusitis

Prolonged mild cough > 2 weeks

...Mid night or Early morning كحة بهذه الشروط

Cough + PND

- + With Free chest
- + Pain over affected sinus
- + Headache (in Children > 4years)

هعالج على إنها Sinusitis فوراً

Signs

*Post nasal discharge PND

Greenish or deep yellowish

*Thick purulent nasal discharge

On inferior turbinate

*Tenderness over affected sinuses

May be absent**لا حظ****90% of Sinusitis are VIRAL infections****NB There are 4 pairs of paranasal sinuses :**

1-Ethmoid

2-Maxillary

both are present at birth & continue to grow until puberty

3-Frontal: Not develop before age of 7 yrs

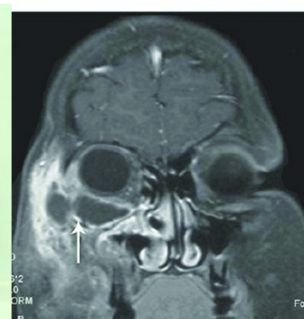
4-Sphenoid: Not fully developed before Adolescent



Periorbital erythema & swelling in 1 year old child with Pansinusitis



Periorbital swelling in 12 years old child with Lt orbital cellulitis as a complication of Acute Bacterial Sinusitis



A 11 years old boy with Ethmoid sinusitis Subperiosteal abscess The CT of same child showing lower lid Abscess

TTT of Sinusitis

1-Nasal decongestants

2-Analgesic antipyretic anti-inflammatory

3-Antibiotics (green/yellow disch., ++Fever)

+Mucolytics (with viscid secretions)

Examples

*Afrin ped nasal drops/ Iliadin ped ND

نقطه في كل فتحة انف كل ١٢ ساعة لمدة ٥ ايام

-Brufen الوزن / ٢ - كل ٨ ساعات

OR Dolphin 12.5 mg supp

-Bisolvone tab or Ambrodoxy cap

***Choice of antibiotics بالترتيب من اعلى لأسفل**

1-Amoxycilline syrup

2-Amoxycilline clavulanic acid

3-Cefaclor

4- Cefuroxime: Zinacef

Throat Exam 0 حاجات في الـ

← **Buccal mucosa** هعرف ازاي؟ أقرانه بـ **? Congested or Not**

..IF more redness → **Congested**

? Tonsils غالبا بتبقى **Enlarged** ومتحكمش عليها ابدا من الحجم فقط --- او مال؟؟
من الـ **Congestion & Edema & Crepts** - ولو مرحلة متقدمة شوية هتلاقي الـ **Crypts** مليانة **PUS**

لاحظ من ٢-٤ سنين -- **Tonsils are Normally enlarged**

ولما بيحصلها انفكشن ← **More enlarged , More congested, More edematous ± Pus**

وانت بتفحص شوف **Gingiva?** واسال الأم عن عمر الولد - وهل الطفل بيسنن أو لا ؟ علشان تستبعد الـ

Dentation

مهم تفحص اللسان والغم ? Ulcers & Fungal infections

(Aphthous ulcers , Herpetic stomatitis.....etc)_

Whitish membrane -- Fungal infection --

Milk curds ولا لازم تفرق بينها وبين الـ

Milk Removed easily leaving normal surface under it

Posteropharyngeal wall examination?

IF secretions & discharge (PND) → Sinusitis diagnosed

Color of secretions?

Coloreless → Mostly Viral

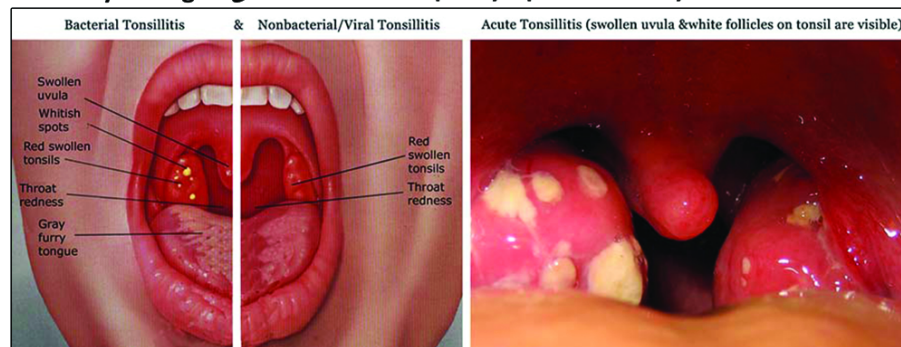
Mild yellow → Allergic infection

Deep yellow → Infection

Greenish = Just Stagnant mucous! معناها ان الافرازات ركنت شوية وبعدين نزلت وليس معناه انفكشن

لاحظ - مهم جدا تشوف **LN's Of the neck**

Mildly enlarged غالبا بتبقى **Just simple Lymphadenitis** 2ry to URTI or Sinusitis





Erythema and edema of the pharynx and palatal petechiae in a child with Group A Streptococcal pharyngitis.



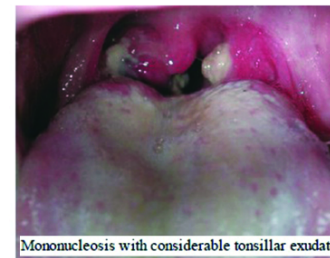
Acute lymphadenitis and abscess in a 9-month-old infant due to systemic infections, such as infectious mononucleosis or viral upper respiratory infections



A. Peritonsillar abscess on the left showing uvular deviation away from the side with the abscess.
B. Peritonsillar abscess with swelling and anatomic distortion of the right tonsillar region.



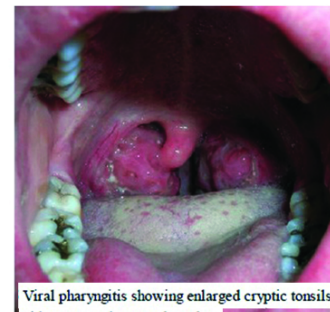
Viral pharyngitis with prominent vascular injection of the soft palate



Mononucleosis with considerable tonsillar exudate.



Strep pharyngitis with dark necrotic area on right tonsil and prominent lymphoid



Viral pharyngitis showing enlarged cryptic tonsils with some erythema and exudate.

لاحظ : مهم جدا لطبيب الأطفال استعمال منظار الأذن Otoscope

Otitis Media is very common in pediatrics Due to Short / narrow / straight E Tube
 وضع الولد وهو يرضع مهم جدا & Can occurs due to → Wrong positioning during breast feeding

لاحظ -- استعمال السكّاتة باستمرار أيضا أحد الأسباب

At FIRST → Mild congested drum ,Then → **Severely congested** or even **bulging** →

Acute Otitis Media كل ده اسمه

Retracted drum ?

إما **Just ET malfunction...** due to edema

أو **Secretory OM---** IF prolonged advanced case

IF Pus ? → Suppurative OM

Exclude Otitis externa

+Ve Test → By pressure tragus on → **PAIN & Tenderness**

ودي اما Bacterial Or Fungal ?

Fungal = ١٠% من الحالات ، بالفحص كأنها ورقة جرنال مبلولة
 Whitish wet filter paper like الطفل يشتكى من أكلان ، أو يفضل يهرش في ودائه ، اسأل الأم عن استعماله للمياه ، أو الأدوية

Fungal infection may be 1ry or 2ry to prolonged TTT of **Bacterial otitis externa**

Bacterial = ٩٠% من الحالات ، بالفحص الألم عنيف جدا ، مفيش أكلان ، موزمة أو محمرة أكثر



a



b



**Otomycosis
caused by
Candida**



c



d

a: Normal tympanic membrane (TM); b: TM with mild bulging; c: TM with moderate bulging; d: TM with severe bulging



**A mild case
of otitis externa**

Management of Pediatric Tonsillitis

Take Throat Swab & Choose the Antibiotic – يفضل جدا

This will give U rapid , excellent Dx. & TTT ☺

باخذ مسحة صغيرة بقطعة من القطن من الـ Follicles or Tonsils

And send → For CS testing

Throat Swab For Culture & Sensitivity test = T/S-CS تكتب ازاي ???

أولا – أغلب الحالات يكون عندها Nasal congestion

اول حاجة بنديها Nasal drops (decongestants)

Balkis ND / Otrivin Ped. ND / Otrivin Baby Saline ND

Rhinex infantile ND / Lyse ND/ Salinex ND

Decongestants الـ Oxyment , Afrin , Iliadin بديها كل ١٢ ساعة - لمدة ٥ - ٧ أيام فقط ليس أكثر

They are Long acting (for 12 H)

NB Nasal drops Are Contraindicated before 3 months (الاولو مضطرا)

لاحظ : في الحالات الـ Recurrent ممكن أستعمل.. Physiological solution

High safety Physiological solution (Physiomere Nasal Spray) يستعمل في أي وقت وبأي جرعة ولأى عمر

وفي منه Baby , Child , Adult ولازم يؤخذ والطفل في الوضعية الصحيحة لضمان فعاليته

ثانيا المضادات الحيوية If Dx is Bacterial

IF Non-febrile – Use Analgesics e.g Tempra , Paracetamol (Doses as before)

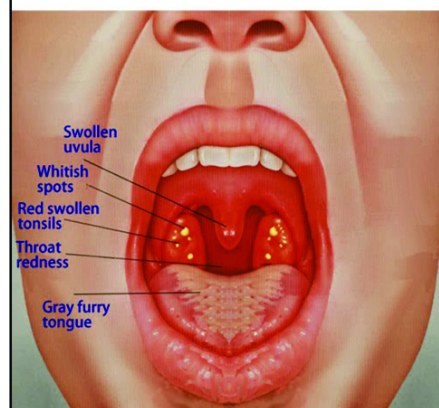
لو الحالة فيها PND = Sinusitis with Post nasal discharge

يستعمل Antipyretics , Antibiotics ولازم ازود Mucolytics

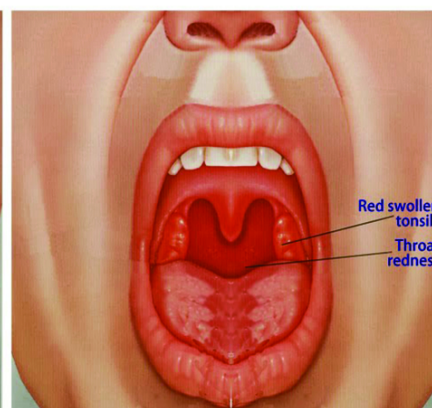
DROPS → Bisolvon / Solvin oral drops / Ambroxol OD (1 Drop/Kg)

SYRUP → Ultrasolv syrup / Mucofar syrup

Bacterial



Viral



2-Gingivo-Stomatitis

1-Infectious

A-Viral

1-Herpetic stomatitis

(Severe congested Mucous membrane)

Aetiology → HSV-type 1

- Clinically** immunodeficient دائما بتيجي في طفل
- Abrupt** onset of fever, severe oral pain, malaise
 - Salivation, Refusal of feeding d.to PAIN
 - Oral** lesions appear 1-2 days later
 - Vesicles** → Rupture → Minute ulcer مالية اللسان
-2-10 mm in size
 - Covered** with grayish membrane on tongue ,
cheeks but can **Affect all Oral mucosa**
 - Submaxillary** lymphadenopathy is common
 - Dehydration** is the main complication

Differential Dx

- 1-**Herpangia** → High fever + Sore throat
± Vomiting, Headache, Abd. pain
Oral lesions → Discrete ulcers
Surrounded by red margin
On pillar, tonsils, pharynx
But not on cheeks or gum
- 2-**Chichen Pox** → Ch. Skin Rash
- 3-**Measles** → Ch. Kopliks spots



NB *Zovirax → لا يستعمل الا في حالتين
(Herpes Zoster & Herpetic Stomatitis)
- البعض يستعمل Novirus Caps (رخيص) ::
يقسم القرص نصفين ويذاب في الماء
ويعطى كل ٦-٥ ساعات



TTT OF Herpetic stomatitis = Self-limited

ممنوع الاكل او المشروبات الساخنة
ممنوع المشروبات الحمضية (الليمون والبرتقال)
ياخذ حاجات مثلجة كثير

1-Systemic analgesic antipyretics

Paracetamol , brufen , declophenac

2-local Anaesthetics

*B.B.C Spray (The best) / Pongeel Spray

-Xylocaine Viscus حلو جدا

-Oracure oral gel

-Dentocaine oral gel

تستعمل قبل الرضاعة او الاكل ب ٥ دقائق

3- Systemic antiviral are used **Only with :**

Severe forms of herpetic stomatitis,
Neonatal herpes ,Immunocompromised
(Acyclovir, Zovirax, Novirus)

ZOVIRAX DOSES

In IV → 10mg/kg/ ٨ ساعات

بانتظام لغاية ٥-٧ أيام

In Oral form : ٥ ساعات أيا كان العمر :
ولما يتحسن ... معلقة كل ٨ ساعات

4-IV fluid: with prolonged refusal of feeding

B-Fungal Oral Candidiasis

- **تظهر على هيئة : White Coated tongue + Refusal of feeding due to pain** وعلشان تفرق بينها وبين ال **Milk curds on tongue** لازم تستعمل **Tongue Depressor** لو الطبقة اتشالت يبقى **Milk** ولو متشالش يبقى **Candida**

- **لو الطفل ماشى على مضاد حيوى** وعنده **Minute candidiasis** ممكن استعمل النقط او الجيل الموضعي معه كوقاية **as prophylaxis** لأن ← (**Fevers & Anti-biotics** are flaring up candidal infection)

- **بعض التركيبات تعطى نتائج رائعة (محلول الصبغة البنفسجية Gentian Violet)** أرج الزجاجة كويس وادهن بيها اللسان والفم جيدا بقطعة قطن (تكرر ٤-٦ مرات) وممكن تستعمل ايضا في حالات **Herpetic stomatitis**

A/E **Candida albicans**
Clinically **White Coated tongue** ,
on inner cheeks , on palate
+ Salivation, Pain, Refusal of feeding
IF removed by tongue depressor →
Leave Red haemorrhagic surface

Differential Dx

1-Milk curds on tongue

Can be removed easily leaving normal surface under it

2-Geographical tongue (Multiple Vit deficiency)

TTT OF Oral Candidiasis

للأم: Nystatin oint وتدهن بيه صدرها بين الرضعات

For baby : DROPS (Better than gel)

Nystatin, Fungifree, Fungisttin Drops

ولا لازم تتحط تحت اللسان

Dose : Sub-lingual 1ml = One dropper /

Every 6-8 hours / For 7-10 days

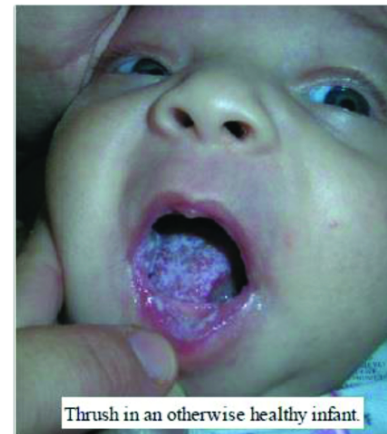
لو نيونيت : يستعمله كل ٨ ساعات

لو سن اكبر شوية : كل ٦ ساعات

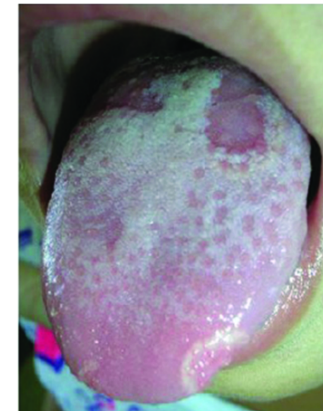
دهان للسان كل ٦ ساعات لمدة ٧ ايام Oral GEL

Miconaz , Miconol , Daktarin ,Buccazole

Micoban (Antifungal + Local anaesthetic Too)



Thrush in an otherwise healthy infant.



Geographic tongue (benign migratory glossitis) in a 4-year-old girl. Note the pink continent among the white ocean.



Vesicular lesions of primary HSV infection in a 12-month-old infant.



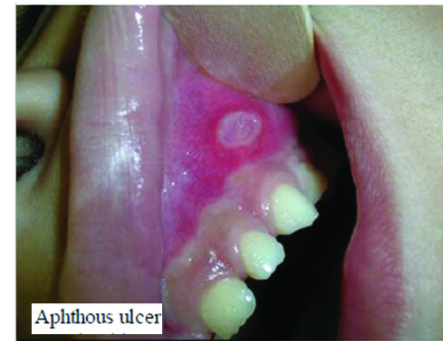
HSV stomatitis in an infant.

Note the cluster of vesicles on the upper lip



Stevens-Johnson syndrome.

characterized by necrosis and sloughing of the mucosa



Aphthous ulcer

slightly raised, round, with a white-yellow
necrotic center and surrounding erythema.



Behçet disease

characterized by recurrent oral and genital ulcers in a 17-year-old girl.



Mucocoele apparent on the lower lip of this boy



Mucocoele on the lower lip of this child.

2-Non-Infectious

A-Eruptive stomatitis

B-Aphthous ulcer = Unknown cause

- يقال انها غالبا **Psychic** - او بسبب GERD

- **Well circumscribed minute, Painful ulcer**

(Number → 1-2 ulcers)

with **white base & congested margin**

- **In any area** of oral cavity especially inner lips, inner cheeks, floor of mouth, ventral surface of tongue ,

But never over hard palate

NB

*In **Recurrent** aphthous ulcer search for:

Vitamin deficiency

GERD

Psychological / Family troubles e.g

الولد بدأ يروح الحضانة او المدرسة

الام حامل اولسه مخلقة قريب



Aphthous ulcer located on unkeratinized (movable) mucosa in a 5-year-old girl. It is slightly raised, round, with a white-yellow necrotic center and surrounding erythema.

C-Traumatic ulcer → History of trauma

D-Local reaction → Chelitis due to sensitivity to contact substances in toys, food

E-Drugs → Phenytoin, Corrosives

F-Micronutrient deficiency

TTT OF Aphthous ulcer

1-Topical applications

Solcoseryl oral paste

يستخدم ٣-٤ مرات في اليوم

Or **Mundisal oral gel**

دهان على القرحة ٥-٦ مرات يوميا

Or **Jogel / Jobadel oral gel**

1-N.B

نبه على الام انها تنظف القرحة بقطعة شاش قبل الدهان

2-N.B

Salivex paint

-Used in Older children

-Cause severe pain on application

(ممتاز ويكوي القرحة لكن مؤلم جدا)

2-Systemic analgesics

-Paracetamol

-Ibuprofen

-Declophenac

لاحظ في حالات

Aphthous ulcer , Herpetic stomatitis

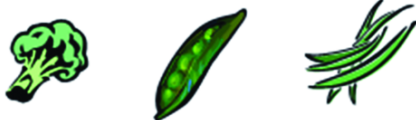
نبه على الام تاكل وتشرب الطفل كويس

منعا لحدوثها او تكرارها ::

→ **Easy swallowed, High caloric, protein diet**



Feeding the Constipated Child (and adult)

Good	Limit
Most fruits – Especially pears, peaches, plums (prunes) and apricots 	Some fruits – Specifically bananas and apple sauce 
Berries 	Potatoes – especially if not eating the skin 
Yogurt 	Dairy – Especially milk and cheese 
Whole Grains & Legumes– Choose whole grain breads, cereals and pasta 	“White” breads, pasta and rice 
Most Vegetables – Broccoli, peas and beans are packed full of fibre as are most others 	Cooked carrots 
Water <i>Adequate water is essential to prevent and relieve constipation</i> 	*Juice, Soda, etc <i>* Fruit juice can be helpful for occasional constipation but shouldn't take the place of actual fruit</i> 

Papular Urticaria = On **Extremities & Face** (Areas exposed to insect bites (نمل وناموس))

Cause **Allergic reaction** to insect bite TTT → Antihistamines + Perderm cream

In So Severe urticaria Use Strong CST (Elocon, Metaz 0.1% Cream, Oint)

*يستعمل مرة واحدة فقط يوميا * ونبه الأم تحط منه طبقة رقيقة جدا علشان ميحصلش امتصاص

NB -Acute Severe urticaria not responding to anti-histamine or steroid.....?

Antileukotrien (Singular) can be used, also combined anti-H1 & H2 are useful

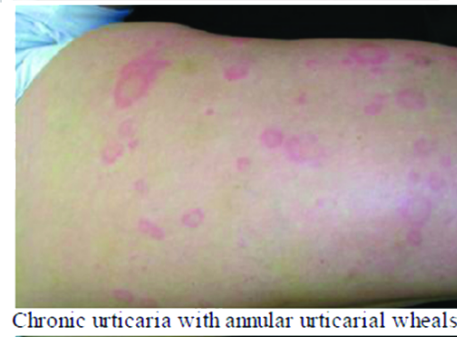
-If Angio-edema is present : IM Epinephrine + Antihistamines+short steroid course

-If Bronchospasm is present : Nebulized albuterol

Case:

Child 5 years old with severe urticaria after sea food meal.

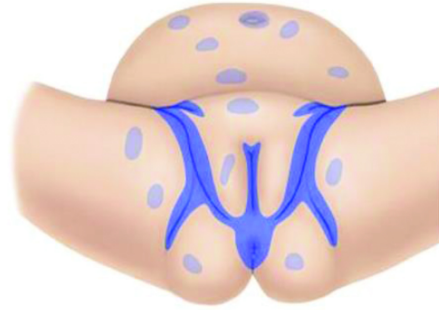
R, Decadron or Fortecartin	amp.	بعد وجبة سمك
R/ Claritine	syrup	حقنة عضل الآن
R- Vendexin	or Phenadon syrup	5 مل صباحا ومساءً
		5 مللى 3 مرات لمدة 3 أيام ثم مرتين



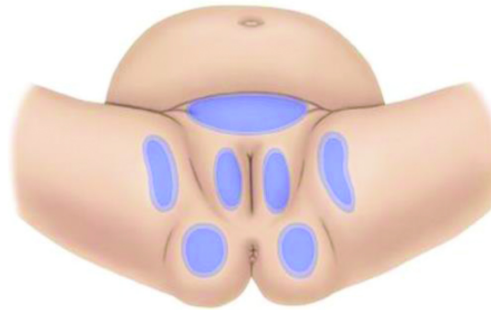
Chronic urticaria with annular urticarial wheals.

Giant urticaria on the left thigh of a 1-year-old boy with some areas that are annular (urticaria multiforme). No underlying cause identified.

Pattern for intertriginous diaper dermatitis



Pattern for irritant diaper dermatitis



Candida diaper dermatitis in an infant



Erythematous plaques and pustules are visible with scattered satellite lesions.

Candida diaper dermatitis in an infant



Chronic occlusion by wet diapers predisposes to infection, which initially begins in the perianal area with subsequent extension to the perineum and inguinal creases.



Candida rash with typical spread of affected skin to thighs and abdomen in an infant boy



Pink and red patches that involve the skin in the diaper area that is characteristic of candidal diaper dermatitis. Scaling skin and spreading to the thighs and abdomen is present.



Perianal dermatitis caused by group A hemolytic streptococci.



Close-up of a *Candida* diaper dermatitis in a 5-month-old infant. Note the superficial scaling around the satellite lesions.



Candida diaper dermatitis in an infant who has oral thrush.



Acrodermatitis enteropathica caused by zinc deficiency. The child also had perioral dermatitis that appeared similar to the diaper dermatitis.



Intertrigo with bright red erythema in the inguinal folds. One should always look for the contributing factors in any case of intertrigo. Three etiologies to consider are: (1) Irritant dermatitis: This is NOT the classic appearance of an irritant from urine and feces that effects outer skin and spares the deep fold. (2) *Candida*: Note the papules and papulovesicles on the left abdomen and a few on the thighs (satellite papules and papulovesicles) (3) Seborrheic dermatitis: Look on the scalp and face as this could be a principle cause of this rash.

Impetigo

Contagious superficial common bacterial infection

- *Usually low socio-economic
- *Erosions covered by moist, honey colored Crusts,
- *Begins as small 1–2 mm vesicles
- *Associated with multiple lesions
- *Face, nares and extremities the most common sites

TTT

Local care + topical antibiotic + systemic antibiotics

If localized, non-bullous
,non-complicated impetigo

If Widespread
,Complicated impetigo

Medications

1-Topical cleansings e.g betadine lotion

2-Mupirocin 2% : Bactroban oint دهان مرتين يوميا لمدة 5 أيام

Systemic AB =

3-Cephalexin: 40 mg/kg/day in 3 divided doses

لمدة ٧ أيام على الأقل

OR

Amox-clav: 40 mg/kg/day in 2 divided doses for 7 days

4-Anti-histamines eg. Loratidine syrup لو الطفل بهرش كثير



Impetigo

Case:

Infant 13 month old with non-bullous impetigo of the face, no fever.

R/ Betadine or Boric acid 4%. Lotion غسول موضعي 3 مرات.

R/ Fusi-Top or Bactroban 2% oint. دهان موضعي بعد الغسول 3 مرات.

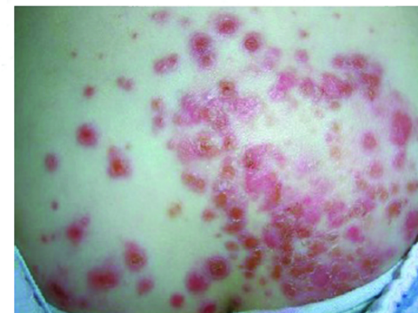
R/ Cephalexin 250 mg susp 5 مللى / 8 ساعات لمدة أسبوع.

R/ In severe extensive case injection with 1st or 2nd generation cephalosporins for 1-2 days is useful.

R/ Drainage of abscesses.



Typical honey-crusted plaque on the ear of young boy with impetigo.



Widespread impetigo with honey-crusted erythematous lesions on the back of a 7- year-old child.



Bullous impetigo around the mouth of a young boy that progressed to desquamation of the skin on his hands and feet.



Impetigo on the face and neck of an infant.

Scabies

Highly contagious ,transmission occurs from person to person. History of pruritus, most notable during bedtime with lesions along the wrists, between the fingers, on the palms and soles, around the umbilicus, in the axillae

Pruritic papules on dorsum hands, flexural surface of wrist, elbows + axillary skin, + genitalia and interdigital
= Severe Nocturnal pruritus



A and B (A) Scabies and (B) Nodular scabies

Rash of scabies, which is a widespread area of irritation, often with pink to red bumps along lines and tracks where the insects have burrowed—blisters and pimple-like lesions called pustules

TTT

Scabicide = Mass family TTT = (الهرش ممكن يستمر مدة بعد العلاج)

In Children and Adolescents Ectomethrin oint 2.5% OR Triderm أقوى

بنحى الطفل وندنه كويس من أول دقته لحد الرجل وابعده عن الوجه

أفضل استعمال له ٣-٥ أيام كل يوم - Single Daily Dose - والحاجات القطن والألياف الصناعية مستبعدة لمدة ٣ أسابيع على الأقل

In infants (Use Safer scabicide) Any Sulphur lotion twice daily for 3 days



Scabetic nodules in the axilla of a toddler with scabies.



Scabies papules on the foot of a 3-month-old child.



Scabies has been transmitted by skin to skin contact in this family.



Scabies infestation on the hand of a 17-year-old teenager

Cases:

R/ Ectomethrin or permethrin cream or Lotion 5%.

دهان للجلد على كل الجسم عدا الوجهة والرأس بعد حمام دافئ بالليفة ويترك لمدة يوم ويكرر بعد 3 أيام.

Or Benzanil Lotion Or Eurax 10% cram

دهان على كل الجلد عدا الوجه والرأس بعد حمام دافئ بالليفة ويكرر 3 أيام متتالية.

R/ Cetrak or Mosedin syrup

5 مللى / مرة أو مرتين حسب الوزن يومياً.

R/ Velosef or Ospexine susp.

حسب الوزن / 8 ساعات.

عزل المريض لمنع انتقال العدوى.

علاج كل أفراد الأسرة في نفس الوقت.

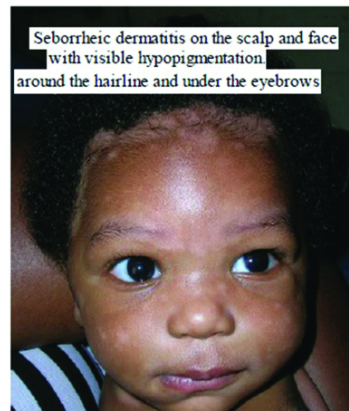
غلى الملابس الداخلية مع إضافة مواد مطهرة.

Seborrheic dermatitis

Seborrheic dermatitis may first appear as adherent ,yellowish scaling of the scalp, (Cradle Cap) or as sudaen appearance of erythema in the skin folds of the axillae, groin, and neck, secondary staphylococcal infection may occur



Seborrheic dermatitis on the face of a 14-year-old boy. Note the erythema and scale especially concentrated around the central face. He also had seborrhea of the scalp and acne.



Seborrheic dermatitis on the scalp and face with visible hypopigmentation around the hairline and under the eyebrows



Seborrheic dermatitis in and around the ear

Case:

Infant 4 month old with cradle cap.

R/ Dentinox shampoo

غسلول لفروة الرأس 3 مرات أسبوعيا

Or Betadine shampoo.

وضع 3 ملاعق على فروة الرأس ويدلك ثم تخفف بالماء الدافئ ويستمر التدليك 5 دقائق ويشطف بالماء ويكرر مرتين أسبوعيا.

Or Tonoscalpine Lotion

كما سبق.

عدم إزالة القشور باليد إلا إذا كانت مرفوعة من أحد الأطراف حتى لا تسبب في إصابة لجند الطفل.

* أحيانا يستخدم زيت الزيتون لجعل هذه القشور أكثر ليونة.

Atopic Eczema

A chronic, relapsing eczematous dermatitis . It is a clinical diagnosis of pruritis. Facial and extensor involvement. in infants and young children, flexural lichenification in older children and family history of atopic disease e.g bronchial asthma, allergic rhinitis



Case:

Child 4 years old with chronic relapsing atopy (eczema).

R/ Dermovate or diprosone oint

دهان موضعي مرتين يوميا لمدة أسبوعين

R/ Histazine-1 or Claritine syrup

10 مل مرة يوميا -لمدة أسبوع

Or Tavegyl or Allergyl syrup

5 مل صباحاً ومساءً

If there is infection:

R/ Ceporex 250 mg susp

5 مللي كل 8 ساعات ساعات.

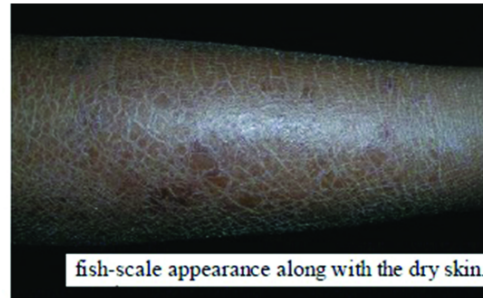
If not effective : Penicillin + Clindamycin combination is effective

NB. Consider staph infection in every flare of atopic dermatitis

Use Acyclovir antiviral to treat atopic dermatitis in patient who develop viral infections



A teenager with atopic dermatitis superinfected by herpes (eczema herpeticum).



fish-scale appearance along with the dry skin.

Acquired ichthyosis on the leg of a 9-year-old boy with atopic dermatitis.



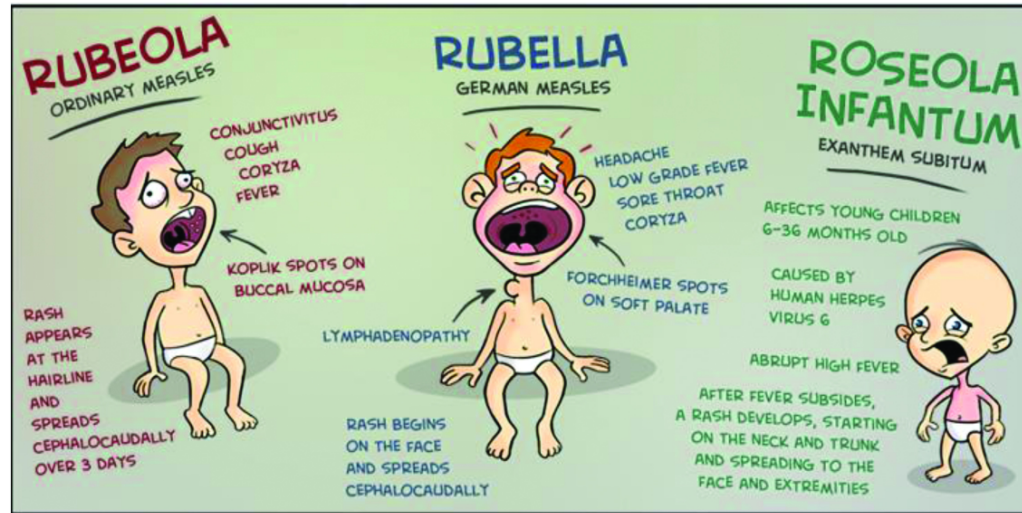
An infant with atopic dermatitis on the face that has become superinfected.



The same infant with superinfected atopic dermatitis of the popliteal fossa.



Eczema herpeticum in a 16-year-old-boy with a history of severe atopic dermatitis.
Eczema herpeticum is a severe HSV infection in a patient with atopic dermatitis.

**Measles exanthem**

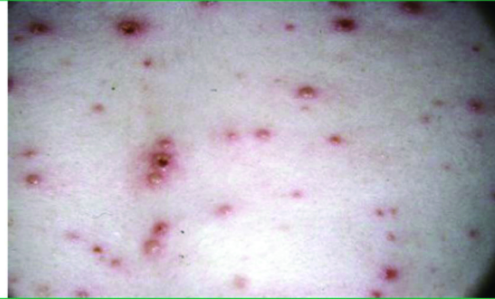
Blanching erythematous rash with some confluent areas on the trunk in a patient with measles.

Koplik's spots

Koplik's spots, seen as whitish elevations on an erythematous background opposite the molars (arrows), are pathognomonic of measles.

Strawberry tongue**Scarlet fever rash**

Fine papules, "sandpaper-like" rash on trunk of child with scarlet fever.

Primary varicella lesions

Vesicular lesions on an erythematous base are characteristic of chickenpox. The lesions occur in crops and are present in a variety of stages from maculopapular to vesicular or even pustular. Central necrosis and early crusting is also visible.

Allergic contact dermatitis

Allergic contact dermatitis of top of foot from leather shoe (chromate allergy).

Eczema herpeticum

Hemorrhagic crusts and vesicles due to herpes simplex virus infection are present on the hand of this infant with underlying atopic dermatitis.

Erythema multiforme



Mucosal erosions and crusts on the lips of a patient with erythema multiforme.

Erythema multiforme



Target lesions are present on the palm of this patient with erythema multiforme.

Rubella rash on a child's back

The distribution is similar to that of measles (rubeola), though the lesions are less intensely red.

Erythema infectiosum

Reticulating pattern of an erythematous eruption on the extremities due to parvovirus B19. Rash is more common in children. The presence of intense erythema (a slapped cheek appearance) on the

Rash in infectious mononucleosis

A generalized, erythematous, maculopapular eruption is often seen in patients with infectious mononucleosis after the administration of ampicillin.

Dermatomal herpes zoster

Grouped vesicles on an erythematous base present in a dermatomal distribution on the upper back due to Herpes zoster. The lesions stop abruptly at the midline.

Slapped cheek rash of parvovirus B19

A child with the characteristic malar ("slapped cheek") rash associated with parvovirus B19 (erythema infectiosum, fifth disease).

Characteristic roseola rash

The rash of roseola appears as the fever abates. It starts on the neck and trunk and spreads to the extremities. As depicted above, it is erythematous, blanching, and macular or maculopapular.



Vesicular lesions of primary HSV infection



HSV stomatitis in an infant.
Note the cluster of vesicles on the upper lip



HSV stomatitis in a school-aged child.

Lesions are associated with pain and intraoral edema



HSV stomatitis in the same child. Note the marked gingival edema.



Stevens-Johnson syndrome.

characterized by necrosis and sloughing of the mucosa.



Behçet disease

characterized by recurrent oral and genital ulcers in a 17-year-old girl.



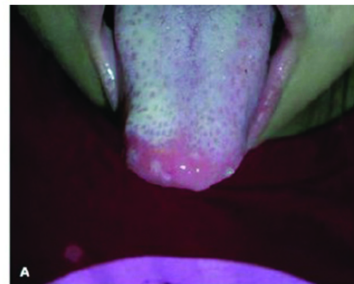
One-month-old infant with SSSS. Note the crustiness on the face and facial edema.



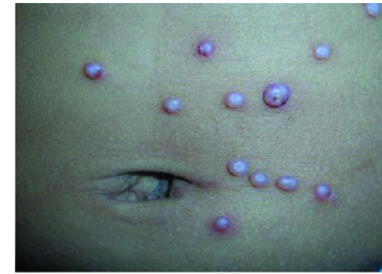
with thin widespread blisters on the trunk.



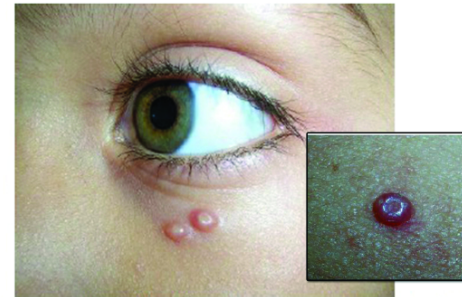
Primary herpes gingivostomatitis in a 4-year-old girl. A. Crusting on the lips. B. Gingivitis with significant erythema and swelling of the gums.



Primary herpes gingivostomatitis in a 4-year-old girl. A. Small ulcers on the tip of the tongue. B. HSV ulcers inside the lower lip.



A group of molluscum contagiosum lesions on the abdomen



Molluscum contagiosum under the eye of a young girl with central umbilication.



Molluscum contagiosum on the face of an 8-year-old girl.



Cryotherapy of molluscum on the face of an 11-year-old girl.



Acute lymphadenitis and abscess in a 9-month-old infant. tends to be due to systemic infections, such as infectious mononucleosis or viral upper respiratory infections



Anterior and posterior cervical lymphadenopathy
This is most commonly of viral etiology.



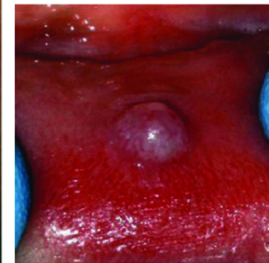
Infected right preauricular sinus with abscess



Venolymphatic Malformation in a 10-year-



Mucocoele on the lower lip of this child.



Ankyloglossia in an 8-year-old boy with speech articulation disorder





Erythema marginatum.

begins on the central areas of the body as macules, and spreads more distally. The macules clear out from the center to form rings.



Strawberry hemangioma on the face causing no functional problems. Treatment is reassurance and watchful waiting.



Neonatal acne



Milia on the face of a 2-week-old infant with greatest number of milia on the nose.



Salmon patch (a variant of nevus flammeus) on the upper eyelid called an "angel's kiss." These resolve by age 2 years.



Salmon patch (a variant of nevus flammeus) on the neck of this young child called a "stork bite." These vascular malformations persist into adulthood.



One small spot of erythema toxicum neonatorum (ETN) on a 2-day-old infant.



More widespread case of erythema toxicum neonatorum (ETN) covering the infant.

ETN is completely benign and will resolve spontaneously.



Perianal (A) and perioral (B) dermatitis due to zinc deficiency. Known as acrodermatitis enteropathica.



Two children with lip licking irritant contact dermatitis. A. Note the postinflammatory hyperpigmentation. B. Note the pink color and crusting.



Classic fifth disease "lace-like" erythematous rash on the trunk and extremities.



Classic erythematous malar rash with "slapped cheek" appearance of fifth disease in an 18-month-old child.



HFMD

Typical flat vesicular lesions on the hand of a 4-year-old boy with hand, foot, and mouth disease.



Foot of the boy . Lesions tend to be on palms and soles, fingers, toes.



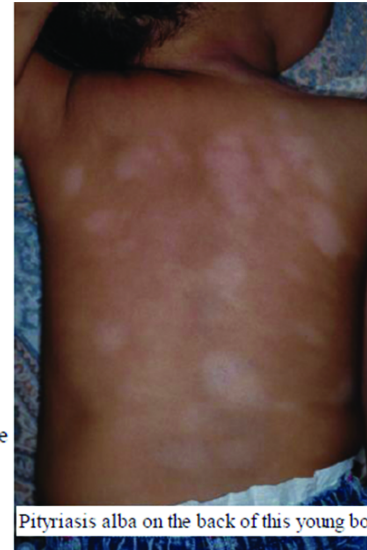
16-month-old male with clinically diagnosed HFMD, likely A6 strain disease. This child had typical perioral / facial, buttocks and leg involvement



Mouth lesions in same boy appear as small ulcers on the lips and oral mucosa.



Pink scaly patches caused by tinea versicolor on the neck of a teenage



Pityriasis alba on the back of this young boy



Tinea corporis producing an open ring near



Mucocutaneous candidiasis in a child, which often associated with severe zinc or iron deficiency.



Tinea pedis seen in the interdigital spaces



Tinea pedis seen in the interdigital space



Chickenpox in a child.

Note lesions in various stages (papules, intact vesicles, pustules, and crusted papules) caused by multiple crops of lesions. The vesicles are on a red base.



Chickenpox in a child.

Note the widespread distribution of the lesions. The honey-crusted lesion on the eyebrow suggests a secondary bacterial infection (impetigo) has developed.



Honey-crusted lesions of superinfected varicella.

This is impetiginized chickenpox caused by a secondary bacterial infection (impetigo)



Close-up of herpes zoster lesions. Note grouped vesicles on a red base.

ملحوظة هامة لو الحالة **Impetigo** هتعالجه زي **Chickenpox** لكن هنزود :

(Permanganate K lotion 1/8000 conc.) + (Anti-biotics e.g Fuci-cream)
 + (Gentian Violet محلول الصبغة البنفسجية) Drying agent لما ينشف خالص
 (For more details : see impetigo topic)

2-Scarlet fever الحمى القرمزية (Common in late winter & spring seasons)

***Fever** Reaches 39-40c on 2nd day & Return to normal **over next 5 days** &
Common age : **3-10 yrs old** , (Earlier with AB therapy)

May be associated with → Vomiting and Abdominal pain

***Rash** Appears on 1st or 2nd day of fever, it appears as Fine diffuse
macula-paular rash (Sand paper or gooseflesh جلد الأوز)

أهم نقطة Rash start in axilla, groin then affect all body **Except**
area around mouth (Face appears flushed with Circum-oral pallor)

Remains for 3-5 days and fades with Peeling of the skin & Pastia line (Don't blanch on pressure)

Ch.Ch. features? Exudative Pharyngitis with pus and **Strawberry tongue**
(Early White then Red Strawberry 3 days later)

TTT of Scarlet fever

The goals of TTT in scarlet fever are

- (1) to prevent acute rheumatic fever,
- (2) to reduce the spread of infection,
- (3) to prevent poststreptococcal glomerulonephritis and suppurative sequelae (eg, adenitis, mastoiditis, ethmoiditis, abscesses, cellulitis)
- (4) to shorten the course of illness.



The exudative pharyngitis typical of scarlet fever. Although the tongue is somewhat out of focus, the whitish coating observed early in scarlet fever is visible.

BED REST during 1st few days of ttt +

1-Antibiotic (Amoxicillin clavulanic acid **الأفضل**)

(Curam/Hibiotic/Megamox/Augmentin 457 مجم تركيزات) → **Wt/4/8hrs**

(هام جدا : مدة العلاج ١٠-١٤ يوم) For complete eradication of strept infection

Alternatives Erythromycin 50mg/kg/day..In 3 divided doses for 10 days

2-Antipyretic Cetal supp or Brufen syrup +Tipped sponges

- لو الحرارة عالية جدا واللبوس مش كفاية ؟ ممكن نضيف باراسيتامول شراب مع اللبوس

Cetal syrup 250mg/5ml OR Temporal syrup 250mg/5ml

(For fear of PSGN) نبيه على الام تاخذ بالها من اى تغيير فى لون البول؟

?? لون الكولا أو العرقسوس → Cola urine / Dusty urine (متابعة لمدة ٦ شهور)

+ Follow up For Rhumatic fever & Rh carditis (Dyspnea)??



Sandpaper rash on the trunk and in the axilla of a 7-year-old boy with scarlet fever.



Sandpaper rash (scarlatiniform) seen prominently on the hand of a child recovering from strep pharyngitis.



Strawberry tongue in a child with scarlet fever

Appearance of Rash in Febrile Patient

Remember the mnemonic: Certain Silly People Make Typhus and Typhoral.

- 1st day – Varicella, i.e. chickenpox (mainly in trunk; all forms seen at a time; no umbilication of vesicle)
- 2nd day – Scarlet fever (over chest, neck, scapula; mainly macular)
- 3rd day – Pox (smallpox)—not seen nowa days (peripheral distribution; rashes come in a sequence; umbilication)
- 4th day – Measles (maculopapular; over forehead, hairline near ears, face and trunk)
- 5th day – Typhus (macular; over shoulders, chest, extremities, palms and soles)
- 6th day – Dengue (morbilliform; over dorsum of hands and feet, trunk)
- 7th day – Typhoid or enteric fever (rose spots over abdomen, flanks and back; pale pink; fades on pressure)

3-MEASLES

Rash in 4th day of fever

Macular, Start at Hairlines, more Seen than felt, Appears in the 4th day of fever first behind ear THEN become generalized, Fades over next 3 days, it remains for 6 days

FEVER (Very high) → Rises gradually during First 4 days & Reach 40 C with appearance of Rash, THEN after 2-3 days it decline to normal

Associated with severe catarhal manifestations → **3Cs**

(Coryza=Rhinitis, Cough, Conjunctivitis) كحة وترشيع وعينه حمراء، ولا تشخص الحصبة بدونهم

Ch Ch features **KOPLIK'S spots** At 3rd day of Fever تختفى بعد ظهور ال rash بيومين
Opposite the lower molar 2nd teeth نقط بيضا على رمادي على أصفر جوا الفم



Typical measles rash that began on the face



The typical measles rash on the trunk



Koplik's spots

occur 1 to 2 days before to 1 to 2 days after the cutaneous rash.

TTT mainly symptomatic
(Usually Self-limited within 10 days period)

ISOLATION + BED Rest in warm room + (Vit A supply: ↓ Complications)

+ Good hydration & IV fluid replacement

1-Antipyretics: Paracetamol or Ibuprofen .. (see before)

2-Antibiotics: only if 2ry infection e.g O.M , Pneumonia

3-Cough medications: Suppressant or expectorant

4-Nasal decongestants & eye drops: Oxymet , Iliadin , Nostmine ND

(كل ١٢ ساعة – لمدة ٥ أيام فقط علشان ميحصلش Mucosal hypertrophy, Atrophic rhinitis)

VITAMIN A is recommended for all children diagnosed with Measles (WHO)

A-viton 50.000IU/Cap تفرغ الكبسولة على اللبن أو العصير

< 6months 50.000IU/day for 2 days orally

6-11months 100.000IU/day for 2 days orally

> 1year 200.000IU/day for 2 days orally

4-Typhoid

At the end of 1st week of illness, with fever 39-40 C
They are salmon-colored , blanching maculopapules
usually 3-4 spots in number on the trunk

Rash in 5th day of fever, Umblicated papule,
Very TOXIC child , White coated tongue.

Dx by Cultures & CBC **Monocytosis / Leucopenia**

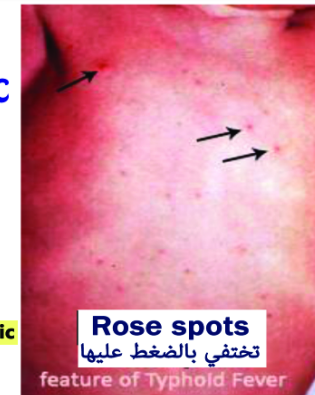
Widal test titre ... أصبح لا يعتمد عليه كثيرا- **Non-sensitive , non-specific**

TTT of Typhoid - See typhoid topic for details

1-Septin **2-Cefotaxime** IM or IV 150mg/kg/day

3-Ceftriaxone 50-75mg/kg Single daily dose

4- Ciprofloxacin 10-30mg /kg Oral in 2 divided doses



ROSE SPOTS

5-Erysipelas : Rash in 6th day of fever

Roseola infantum=HHV-6 infection الحمى الوردية

Fever **Rises rapidly** to 39-40c and remain for 3-4 days

Rash Appear in 5th day **with the drop of fever** & remain for 24 h

تتميز بـ

- ١-أول ما الحرارة تنزل نشاط الطفل يرجع لطبيعته
- ٢-أول ما الحرارة تنخفض ... **الراش** يبدأ يظهر ... في الرقبة والبطن ثم ينتشر

TTT No specific ttt for HHV6 till now = **TTT is maily symptomatic**



A 13-month-old boy who developed a high fever that persisted for 4 days without any apparent cause. The child appeared relatively well and the fever went away, followed by the appearance of a slightly raised pink rash that began on the child's trunk and spread to the child's face and extremities. This is a typical course for roseola.

Iron Deficiency Anemia (IDA)

Most common anaemia world wide

Causes

- 1-↓ Intake Exclusive breast feeding → from Dietetic history
- 2-↓ Absorption/Malabsorption \$ ↑ Undigested food particles → In Stool analysis
OR Excess Tea, Antacids that ↓ iron absorption → From Dietetic history
- 3-Chronic blood loss e.g Parasitic → In Stool analysis OR
Meckel's Diverticulum → M/C Cause of lower GIT Bleeding in Infants & Childs
- 4-↑ Demand In Prematures , Adolescents & Cyanotic CHD

Clinical picture

1-General manifestations of anaemia

- *Easy fatigue, Palpitation, Exertional dyspnea
- *Pallor (in mucous membranes)
(Breath Holding Attacks **مهم**)= Severe crying → Apnea → May reach to cyanosis & convulsions
- *Headache, Dizziness, ↓Concentration
- *Hyperdynamic circulation → Tachycardia, Bounding pulse, Haemic murmurs

2-Specific manifestations of iron D anaemia

Nails : Brittle, flattened, loss of luster & Spoon shaped (Koilonychia)

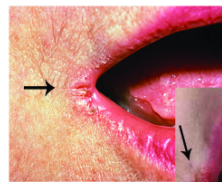
Mouth : Angular stomatitis , Glossitis

Very mild splenomegally in 10% cases أحيانا

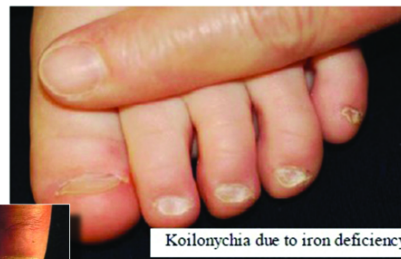
Neuro-psychiatric = PICA (Peverted Appetite) e.g **بياكل الثلج-الطباشير-الطين**

3-Maifestation of cause

Angular stomatitis , Glossitis



(Koilonychia)



Koilonychia due to iron deficiency.

لين العظام RICKETS**مقدمة**

ينقسم إلى نوعين الأول **Infantile rickets = Vit D def rickets = Nutritional rickets**

وده بيستجيب للجرعات العادية من فيتامين D

الثاني **Vit D resistant rickets =** لا يستجيب للجرعات العادية

كلامنا عن النوع الاول **Nutritional = Vit D Deficiency** Failure of mineralization in growing bone

مرض حصري في الاطفال ، أحد أمراض الشهر السادس Around 6th month - 2years ، وأكثر حدوثا

في الشتاء، وأكثر في طفل يرضع صناعي، لديه؟ علشان أحيانا بيدخل في.. **G.E = Recurrent Vit D losses**

Causes ?**1-Dietary**

↓ Vit D in food as in : Prolonged breast feeding without Vit D supply = **Exclusive Breast Feeding**

* أو ... الطفل بياكل حاجات ناقصة من Ca , P

زي الحبوب والغلل وبعض الخضروات ... والـ CHO بيقل امتصاص الكالسيوم

لاحظ: لبن الأم متكامل إلا من ثلاثة أشياء **K.I.D ☺ = Vit K , Vit D , Iron**

علشان كده ابتداء من الشهر الخامس أو السادس نبدأ ندي الطفل Vit D أو نعرضه للشمس كويس ،

لاحظ .. الطفل ده معرض أيضا لأنيميا نقص الحديد **IDA**

2-U.V.Rays non-exposure

عدم تعريض الطفل للشمس لمدة كافية

(Failure of Vit D activation in the skin)

In more details**1-Skeletal manifestations**

Most important diagnostic feature √√

Head → Large head, frontal bossing, delayed closure of fontanel, delayed teething

Thorax → Palpable Rosaries (**Enlarged costocondral junction**)

لو أصبحت مرئية وشففتها بعينك ده يساوي **Late rickets**



young child with nutritional rickets.
Widening of the wrists, bowed legs,
bowing of the forearms,



Prominence of the costochondral junction (rachitic rosary)
in the same child

Harrison sulcus (Longitudinal groove at lower costal margin)

Longitudinal sulcus (Vertical groove behind rosary beads) $\pm$ **Chest deformity**
Limbs $\rightarrow$ Broad epiphysis at lower end of ulna & radius

Marfan sign (Transverse groove palpated over the medial malleoli) $\pm$ **limb deformity**

Spine $\rightarrow$ Correctable kyphosis

2-Muscular manifestations

***Delayed motor development** (Delayed sitting , Crawling , Standing , Walking)

***Abdominal distension** ***Visceroptosis** (Palpable liver & spleen)

3-Neurological & General Manifestation

Anorexia , **Irritability**, **Sweating** , **Tetany**

Advanced Rickets

1. Head

i. Skeletal Changes

- Large head
- Large anterior fontanel (delayed closure).
- Asymmetric skull; may be box shaped

- Frontal & parietal bones bossing due to excess osteoid
- Depressed nasal bridge
- Delayed teething, dental caries



2. Chest



- **Rachitic rosaries**
 - Visible & Palpable.
 - Rounded, Regular, Non tender



- **Longitudinal sulcus** $\rightarrow$ lateral to the rosaries
- **Harrison sulcus** $\rightarrow$ transverse groove along the costal insertion of the diaphragm
- **Chest deformities:**
 - * Pigeon chest $\rightarrow$ sternum & adjacent cartilages project forwards.
 - * Funnel chest $\rightarrow$ depression of the sternum & flaring out of the lower ribs.

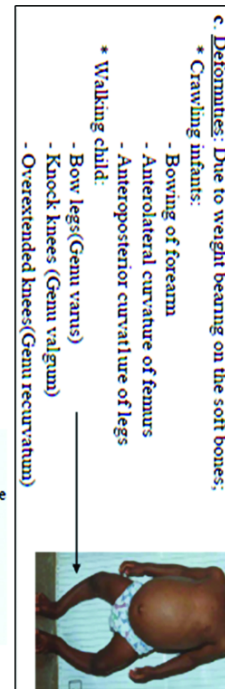
3. Vertebral column : there may be

- Kyphosis: in dorsolumbar region
 - Smooth.
 - Apparent on sitting, disappear by lifting.
 - With compensatory lumbar lordosis
- Scoliosis: lateral curvature of the spine

4. Extremities



- Broadening of epiphysis of long bones especially at wrist & ankles.
- Marfan sign:** transverse groove over the medial malleolus due to unequal growth of the two ossific centers.



B- Non nutritional rickets (VIT D Resistant rickets)

Due to: مشكلة في Absorption (Malabsorption \$, Celiac disease, Steatorrhea)
مشكلة في Activation (Renal rickets & Hepatic rickets)

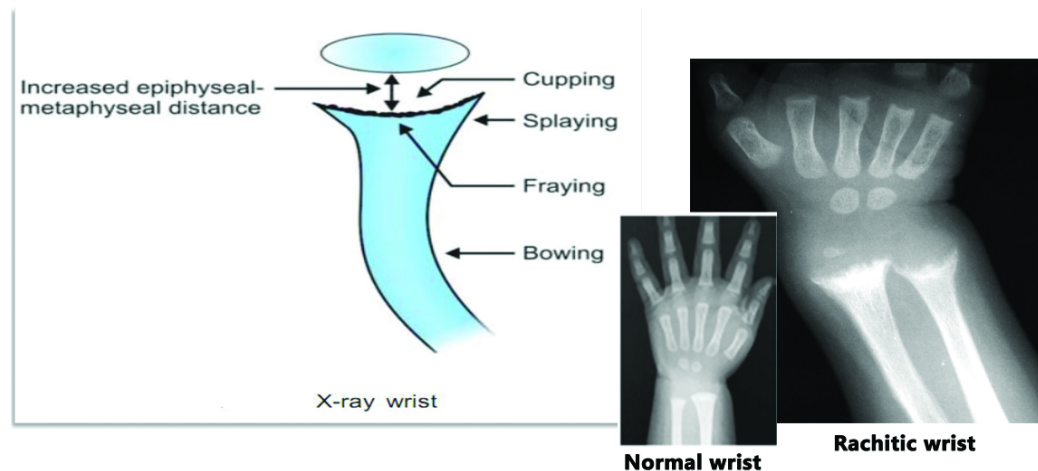
Clinically Usually **After 2 years** OR **Before 6 months**

Other notes about Rickets❖ **Its Active or not ?**

1-Radiological → **Plain X-Ray on WRIST**, Better **on Knee**, as bone growth is most rapid in this area, and **Rachitic changes** are seen earliest at this location)

Will show Signs of activity **علامات الـ Active Rickets**

- 1. Triad of:-** Widening , Cupping , Fraying
- 2. Wide Joint spaces:-** between lower radius, ulna & carpal bones
- 3. Clinically :** Shaft of long bones (Fractures or Bowing = Deformity)



***Healing Rickets (After 2 weeks) أثناء العلاج**

Concave interrupted zone of provisional calcification

***Healed Rickets (After 4 weeks) بعد العلاج**

Continuous transverse zone of provisional calcification

****Zone of provisional calcification**

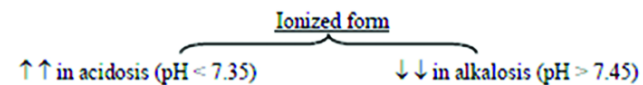
آخر حبة بتظهر في العظم من تحت وهو أول خط يتصلح مع العلاج ، لو لم يظهر بعد أسبوعين علاج فده غالبا
 Vit D resist rickets

Important Notes

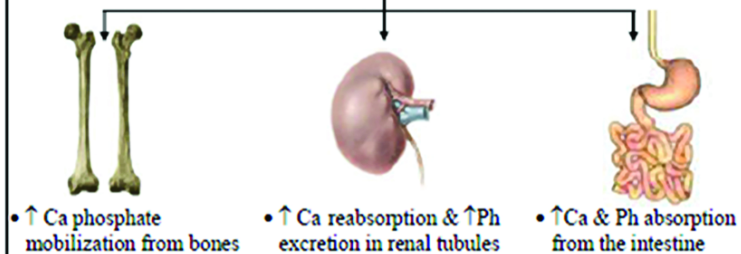
- ① Normal serum calcium (Ca) = 9 – 11 mg/dl.
 Normal serum phosphate (Ph.) = 4.5 – 5.5 mg/dl.
 So, Ca: Ph. ratio in blood = 2:1 which is optimal for absorption & mineralization of bones

- ② Production of Ca × phosphate usually constant $\approx 40 - 50$ this product is called Holland formula or solubility product.
 * If serum phosphate increases $\rightarrow$ reciprocal decrease in serum Ca occur to keep the formula constant.
 * If Holland formula $> 80 \Rightarrow$ widespread deposition of Ca phosphate occur in different tissues (metastatic calcifications) especially in the kidneys & heart.

- ③ Serum Ca has 2 forms in balance:
 * Non ionized form $\rightarrow$ inactive
 * Ionized form $\rightarrow$ active form.



- ④ Parathyroid (Parathormone) hormone (PTH) is secreted from parathyroid glands
- Main action of PTH is to keep serum calcium constant.
 - $\downarrow$ Serum Calcium or $\uparrow$ Serum phosphate stimulate parathyroids $\Rightarrow \uparrow$ PTH
 $\Rightarrow$ *Secondary hyperparathyroidism (2nd HPT).*

Actions

Radiograph in a 4-year-old girl with rickets depicts bowing of the legs caused by loading.

